DOCUMENT RESUME

ED 037 130 FL 001 626

AUTHOR Morton, F. Rand
TITLE The Language Laboratory as a Teaching Machine.
PUB DATE 60
NOTE 4p.; Excerpt as reprinted in Annual Bulletin 19 of the Connecticut Audio-Visual Education Association, "Modern Techniques in Teaching Foreign Languages: Language Laboratories", p162-165, 1960

EDRS PRICE EDRS Price MF-$0.25 HC-$0.30
DESCRIPTORS Autoinstructional Aids, Educational Facilities, Educational Technology, *Language Instruction, *Language Laboratories, *Language Laboratory Equipment, Language Laboratory Use, Multimedia Instruction, Programed Instruction, *Secondary Education, Second Language Learning, Student Participation, *Teaching Machines, Teaching Methods

ABSTRACT

The Language Laboratory Teaching Machine (LLTM), as it is conceived to function at a typical high school, serves as an independent teaching facility having a wide variety of applications. Description of the different mechanical and electronic components accompanies discussion of student involvement. Distinctions between the "audio" teaching machine and the "visual" teaching machine conclude the article. (RL)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

ED037130

(Excerpt from)

# THE LANGUAGE LABORATORY AS A TEACHING MACHINE

By F. RAND MORTON
Associate Professor of Spanish and
Director, Language Laboratory
University of Michigan

(Reproduced with the permission of the author and the Chairman of the University of Indiana *Language Laboratory Conference*, January 21-23, 1960)

It is admittedly difficult to describe the different mechanical and electronic components of the Language Laboratory Teaching Machine (herein referred to as the LLTM) in such a way as to suggest their final and functional integration into a Language Teaching Machine. To attempt a description of how each component will or may finally be *used* in language learning may be more profitable. To do this I must ask your scholarly and scientific indulgence for a moment in allowing me the less compromising realm of fantasy in which to place, and describe the use of, the future LLTM. Not then in any mid-western university, but rather in a typical high school in Okeechobee, Florida—which we shall call Superior High School for simple convenience—shall we now regard the use of our Language Laboratory as a Teaching Machine:

The Superior LLTM consists of a semi-darkened (but pleasant) room, longer than it is wide—similar to the typical rectangular rooms used for typing classes or glee club practice in most American high schools. In this room are five long rows of twenty semi-enclosed, acoustically treated student booths, each resembling more a miniature study alcove than anything else. An enunciator light above the booths indicates whether the particular booth is occupied or not and may be seen from any part of the room. In the booth is a small, adjustable, bullet shaped lamp; a small mirror, and what seems-to-be a nine inch television screen adjacent to the dial assembly Language Teaching Machine (operated with a telephone-type dial). The room is comfortably filled with the buzz of 80 or 90 busy students talking to themselves in French, German, Russian and Spanish. John, a typical Okeechobee student, enters. He is currently enrolled in the Spanish Course "One" and his class is scheduled at 11:05 in the morning. Unfortunately, John arrives some ten minutes late today having been detained, unavoidably, at the gym. No matter. He interrupts no class but merely looks for an empty booth, finds it, seats himself and dons his earphones. (The removal of the phones from the equipment extinguishes the indicator light atop the booth and turns "on" all equipment in the booth.) John opens his lesson directory which he has brought along. His first year Spanish course consists of five hundred lessons for a grade of C, seven hundred for

PL 001 626

a grade of B and 850 for an A. John is hoping to earn an A and is therefore coming in frequently after school to get as far ahead as possible. As he has been averaging some six lessons each day he is now, after a month of classes, ready to begin lesson 120. (These lessons, it should be noted, last at the most some five or six minutes, but have to be done at least three or four times before the student feels confident he is doing them perfectly.) John was checking his lab directory for instructions on lesson 120. It turns out to be, quite precisely, a test lesson on the identification of present, preterite and future verbal endings in Spanish. The instructions state simply: "Identify time of action (meaning the tense of verbs) by standard answering procedures and key words" (both of which John has already learned). To get his lesson, John simply dials the number indicated in the manual: S1120A. He immediately hears a question, spoken in a stern voice: "¿Cuando hablaré?" In the pause which follows, John, speaking into the microphone, hears himself respond automatically: "Usted hablará mañana." A moment later he hears another voice, similar in maturity to his own, give the same answer and he knows that his has been correct. That is, his use of the key word "mañana"— all that was being tested here—indicated that he had recognized and responded correctly to the final stressed -ré of the verb "hablaré."

John is already hearing a new question spoken by a younger and much more "disarming" voice: "¿Cuando hablé?" John answers: "Usted habló ayer." A moment later he hears: "Tú hablaste ayer." John makes a grimace. His key word was correct but he had not responded correctly to the friendly voice. He too should have used "tú." But he is already answering another question. Perhaps a minute later he hears a short bell-like note in his earphones. He knows now that he can grade his own performance. If he makes no error in his answers between this signal and the next, which he will hear a few minutes later, it will be safe for him to proceed to the next regular lesson. Nevertheless, he already realizes he needs more practice on the "future" and is about to dial himself back to S1116G when he hears another voice in his phones. It is his monitor who, herself, was born in Okeechobee. "Johnny," she says, with the local intonation "wa dount youu make yor stresses with more vólume? Yor sayn 'hablou' and it should be 'hablóu.' You jes dial S130 for a spell 'fore you do any more taday!" Poor John! His own Spanish pronunciation is, in general, far, far better than his teacher's, but nevertheless she still hears his mistakes better than he and always insists that he be perfect. Since he will have to satisfy her on his final oral recorded exam, he must try hard to make her corrections automatic in his speech. After dutifully dialing and working with the recommended drill, he returns to mechanizing his responses to the structural clues of Spanish futurity. His class was over at 12 noon, but John takes ten minutes out of his own lunch time and continues

to work until he has successfully completed lesson 125. Satisfied, he hangs up his earphones and leaves. (Indicator light flashes "unoccupied"; equipment returns to standby.) He is pleased to note that lesson 126—which he may get back to that afternoon— utilizes the video screen and these are the lessons he enjoys most. As he leaves, his teacher enters on a large record-sheet the fact that yet another student had experienced noticeable extinction of stress conditioning in the vicinity of S1120A.

Having witnessed the "conventional" use of an imaginary LLTM, we can safely suggest the future use of others less imaginary. For awhile these will be used, much as now, to accomplish outside of class what cannot be accomplished within it. Little by little the student will find that his required level of achievement in the course is not jeopardized by failure to attend class as long as he uses the LLTM sufficiently. This circumstance will suggest in turn that "new material" of an "informational nature" be introduced in the class and its presentation be made through weekly lectures attended by all students in the course as a single group rather than in class sections. Section instructors may find it convenient to split their classes into four or five groups and work on an almost tutorial basis in "personalized drill sections." These small groups may later be formed by students who have arrived, more or less simultaneously, at the same "point of proficiency" within their programmed language course. Finally, it may be recognized that to give college credit for the mastery of a skill seems of dubious legitimacy and new kinds of language requirements will be adopted. But now we are no longer in the LLTM.

To return, in summary, to its own peculiar use we might say that the LLTM may be employed, much like the library today, as an independent, in a way autonomous, teaching facility to which the language student can recur when he needs the specific skill and proficiency it can provide him. It will be used in place of the class for reasons both of pedagogical and practical expediency. And the more it will be used, the more effective it will become. Here alone it can challenge the human teacher for it is, finally, the machine which can perfect itself.

### *Applications*

It may not be inappropriate at this point, to comment briefly as to what may be, in general, the applications—both to language learning and to other areas of instruction—of the equipment we have described here solely as a Language Teaching Machine. As we have seen, the LLTM seems particularly appropriate to the mechanization of linguistic habits as made manifest through verbal responses to acoustic stimuli, the correctness of each response being made known immediately to the learner through the comparison of the given

response with a subsequently presented model before a new stimulus is heard. In such a way, certainly, all of the "manipulative" or structural elements of language—the receiving and rendering skills—may be taught. Can the LLTM teach more? Actually, through its ability to present in strict, pre-arranged order any series of minimal or maximal segments, it would seem particularly well suited to teach many of the "procedures" which we more commonly consider as "arts." Much of the usual materials of a linguistic or literary *"explication de texte"* course would certainly lend itself to effective machine presentation. In its ability to place at the student's disposal a large number of different audio samples it could provide simultaneously the expository information of a "literature course" together with the illustrative examples of an accompanying anthology and, finally, the explicative materials for each example normally found in footnotes or introductions. These are a few of the obvious further applications in language teaching.

Indeed, taking the broadest view possible, what could an "audio" teaching machine not do that a "visual" teaching machine can? Only those things, we may answer, that require purely visual symbolization for their most effective learning. Such a consideration appears to exclude few if any of the usual academic disciplines pursued in American educational systems. With the facilities of the video screen —an easy adjunct to the dial selector assembly of the LLTM—most of these exceptions might disappear. Certainly audio programs would differ considerably in nature and manner of presentation from visual programs. "Correct verbalization" on the students' part rather than "correct thinking" would be the test of knowledge gained; but the line that separates the two may be imaginary. Indeed, if we have been successful in freeing our Teaching Machine from limitations due to lack of mechanical flexibility, then it is limited in its ability to teach only by the Programs we can provide for its use. And this limitation will be ultimately our own as teachers and programmers.

"PERMISSION TO REPRODUCE THIS [redacted] MATERIAL HAS BEEN GRANTED BY F. RAND MORTON

TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE U.S. OFFICE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER."